

DROP SAFE® FILTERS

DS-M6+ -600

APPLICATIONS

Filtrair Drop Safe (DS) rigid filters serve as efficient pre or final filters in air intake systems of Gas Turbines, in any environmental condition (including offshore, marine) and in any climate (including tropical). They efficiently remove airborne particulate matter but also snow, mist and fog, acting as a filter and a coalescer in one. DS rigid filters are specially designed for the elimination and drainage of free water and air borne salt crystals. Where subsequent final filters are placed, they protect them not only from coarse dust but also from running in wet conditions, thus significantly prolonging their life and increasing their operational safety.

FILTER MEDIA

Filtrair manufactures its own thermally bonded synthetic media for DS rigid pocket filters. The depth loading media is of progressive structure for high dust holding capacity and contains an added hydrophobic treatment and tackifier throughout the medium depth to repel water and retain their operational safety.

WATER DROPLET SEPARATION TESTING

Filtrair tested its DS filters not only for particle separation (e.g. as per ISO16890 & ASHRAE 52.2) but also for water droplet separation. The latter is relevant when operating DS filters with air containing free water in droplet form (fog, mist, froth, salt water spray) to avoid that dissolved solids penetrating the filter in liquid form.

FEATURES AND BENEFITS

- Unique - combined coalescer and particle filter in one
- For extreme environments: high moisture and water mist content, high velocity, offshore, marine, ...
- Patented sealed boot pocket design - coalesces water inside the pockets and drains it out upstream of the filter
- Self-supporting, leak-free welded pockets - stay rigid when wet and in turbulent air - eliminating shedding
- Aerodynamic wedge-shape, tubular pocket spacers - minimum flow resistance and maximum dust holding
- Pockets water tight integrated in injection molded, impact-proof PU header - burst strength of > 6000 Pa
- Unique, proprietary, progressive Filtrair filter media with special hydrophobic treatment
- Filter range tested as per ISO 16890, ISO 29461 1&2 and for water endurance test
- Available in filter classes G4, M5, M6, M6+ and F7 per EN 779:2012

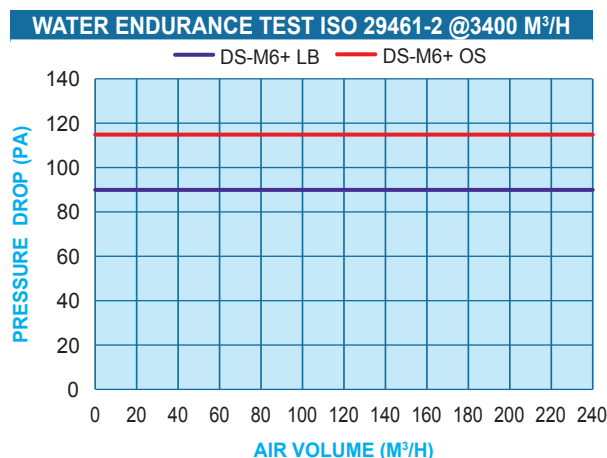
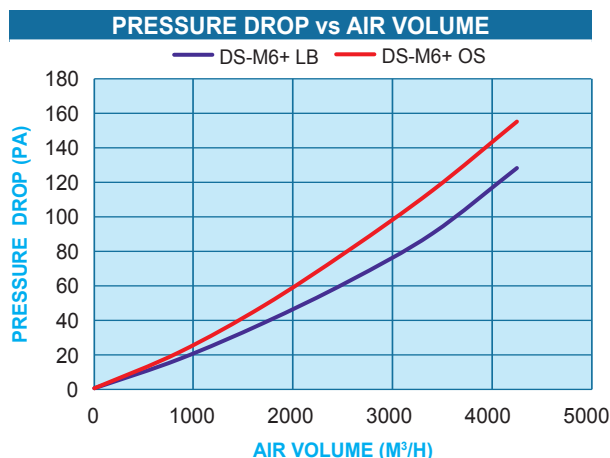
DROP SAFE® FILTERS DS-M6+ LB AND DS-M6+ OS

| TECHNICAL DATA EN 779: 2012 | | | |
|--|-------------------|-----------|-----------|
| Filter type | Unit | DS-M6+ LB | DS-M6+ OS |
| Rated air flow (1/1 size) | m ³ /h | 3400 | 3400 |
| Initial pressure drop at rated air flow (3400 m ³ /h) | Pa | 90 | 115 |
| Initial pressure drop at rated air flow (4250 m ³ /h) | Pa | 130 | 160 |
| Recommended final pressure drop | Pa | 450 | 450 |
| Filter class per EN779:2012 | - | M6 | M6 |
| Dust holding capacity (Ashrae dust) 450 Pa | g/unit | 790 | 1100 |

| ISO 16890 TECHNICAL DATA | | | |
|---|--------|-----------|-----------|
| Class To ISO 16890 | | ePM10 70% | ePM10 70% |
| Filter class according to ISO 29461-1 | | ISO T5 | ISO T5 |
| Water repellency according to ISO 29461-2 | % | > 99 | > 99 |
| Particulate matter efficiency | | | |
| ePM _{1,0} | % | 21 | 21 |
| ePM _{2,5} | % | 34 | 34 |
| ePM ₁₀ | % | 73 | 74 |
| Cut off Particle size | µm | 5 | 5 |
| Dust holding capacity (ISO 12103 A2 Fine) | g/unit | 1600 | 2100 |

LB = Land based, OS = Off shore

| PRODUCT GEOMETRIES | | | |
|--|----------------|--|---------|
| Filter dimensions | mm | 595*595 | 595*595 |
| Filter length | mm | 620 | 620 |
| Filter medium area | m ² | 5,0 | 6,3 |
| Nr. of pockets | - | 8 | 10 |
| Filter weight | kg | 3,6 | 4,2 |
| Package - nr of filters per box | unit | 2 | 2 |
| Suitable for standard mounting frame | mm | 610*610 | 610*610 |
| Maximum continuous working temperature | °C | ≤ 70 | ≤ 70 |
| Admissible relative humidity | % | 100 | 100 |
| Maximum final operating pressure drop | Pa | 600 | 600 |
| Burst pressure drop | Pa | > 6000 | > 6000 |
| Options available on request | | Gasket 6 mm on downstream, on upstream side or on both sides | |



| TEST CONDITIONS AND REMARKS | | | |
|-----------------------------------|---|---|-------------------|
| Relative humidity of test air | ≥ 95% | The filter must have a pressure drop less than | 1000 Pa / 4" W.G. |
| Upstream water fog concentration | 6.0 g/m ³ at 3.400 m ³ /h | Water droplet range size | 5 µm to 30 µm |
| Conditioned with upstream fog for | 240 minutes | There cannot be any measurable water downstream of the filter | |

All data are average indicative values with usual manufacturing and testing tolerances. We reserve the right to modify performance data without prior notice. Specific performance data will require our written confirmation. Filtrair® is the registered trade mark of Filtrair bv.



Filtrair®
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